antennæ about half the length of the animal in the female and more than three fourths in the male. Mandibulæ with a molar tubercle. The first and second gnathopoda resembling those of *Callisoma Hopei* and *C. crenata*. The coxæ of the five anterior pairs of appendages the same as in the above-named species; but those of the fourth pair of pereiopoda considerably deeper than the ones appertaining to the fifth pair. The meros in the first two pairs of pereiopoda is produced anteriorly, and those of the three succeeding appendages, as well as the carpus of the third pereiopos, are produced posteriorly into a squamose plate. The basis in the last three pairs of pereiopoda nearly the same as in *Callisoma crenata*, but the basis in the fourth pair considerably broader and higher than in the fifth pair. The fourth segment of the pleon, very much smaller than the preceding, has a notch on its dorsal surface and close to its junction with this segment; the fifth segment, still smaller, is also remarkable by a like but much less deep notch. The pleopoda of the sixth pair biramous, the rami being subequal, subfoliaceous; the inner one shorter and fringed on its inner margin with plumous hairs; the outer margins of both branches bear three to four spinules. Telson deeply cut, but single.

The whole animal is covered with brownish-yellow, minute, subovate spots, very regularly disposed, particularly on the segments of the pleon. The dead specimens preserved in spirit are yellowish grey, the others preserved in glycerine tending to a lemon-colour.

Length of the male 7·54 millims., of the female 8·22 millims.

The specimens were taken by Count Constantine Branicki at Nice in a dead *Clypeaster*, and presented to the Zoological Museum at Warsaw.

Being desirous of associating with the discovery one who has done so much for the advancement of natural history in his own country, and contributes so profusely to the enriching of our country museum, I have attached to the species the name of Count Constantine Branicki.

IV.—*On the Longicorn Coleoptera of New Zealand.*

By H. W. Bates, F.L.S.

The number of new genera and species of Longicorn Coleoptera described in the following pages, chiefly obtained, without their devoting especial attention to the family, by two gentlemen (Mr. Lawson and Mr. Fereday) in the immediate neigh-

bourhoods of the settlements where they are located, shows how much yet remains to be done before we can be said to have a satisfactory knowledge of the insect-fauna of New Zealand. The representatives of this almost exclusively wood-eating coleopterous family are evidently much more numerous in species there than in the British Isles, 57 being already known; whereas in Britain we have only 56, a number not likely to be increased by future researches. It would be proper, doubtless, to withdraw from the New-Zealand list four of the species as being evidently introduced (three from Australia and one from Europe), thus leaving 53 only; but, on the other hand, several undescribed species exist in private collections.

The remarks I had occasion to make in a former paper on the family Geodephaga, as to the strong endemicity of the New-Zealand Coleopterous fauna, are more than justified by the subsequent study of the family Longicornia. A close and repeated examination of all parts of the external structure which afford characters for judging on the affinity of forms in this difficult group, has resulted in showing that very few indeed of the New-Zealand genera are found in other parts of the world. Out of the total number of 35, no fewer than 26, as far as at present known, are peculiar to the islands; and about a dozen of these have no near relationship to forms occurring elsewhere, the rest being more or less related to genera found in Lord Howe's Island, New Caledonia, and Australia. It is in these two latter countries that seven of the other nine genera occur, one only of them (*Demonax*) extending its range through the Moluccas to South-eastern Asia. As to species, all, except one (*Hylotrupes bajulus*) introduced from Europe and three introduced from Australia, are peculiar to the islands.

Coleoptera Longicornia.

Family **Prionidæ**.

Prionoplus reticularis.

Prionoplus reticularis, White, Dieffenbach's 'New Zealand,' ii. p. 276; Westwood, Arcana Entomologica, ii. p. 25, t. 56. f. 1.

Northern and Southern islands.

Family **Cerambycidæ**.

Division I. *Eyes coarsely faceted.*

Phoracantha dorsalis, Newm.

I have not seen any specimen from New Zealand of this

well-known Australian insect. White gives it on the authority of Dr. Sinclair.

LIOGRAMMA, nov. gen.

Ad. gen. *Phacodes* et *Elaphidion* affine, sed antennis articulo tertio apice intus acute producto, articulis reliquis simplicibus. *Corpus* lineare, paulo convexum, nitidum sed passim pubescens. *Caput* retractum; oculi prominuli, grossissime granulati; frons brevis; palpi breves, articulis terminalibus triangularibus. *Antennæ* ♂ corpore paulo longiores, pilosæ, haud sulcatæ, scapo curvato-clavato, articulo tertio apice intus acute dentato, quarto quam tertio paulo breviore, quinto usque undecimum æqualibus, precedente longioribus, gradatim attenuatis. *Thoraæ* oblongus, postice vix angustatus, lateribus paulo rotundatis inermibus, supra rugosis, lineis elevatis politis. *Elytra* thorace vix latiora apice late rotundata. *Pedes* modice elongati, femora gradatim clavata; tibiæ haud sulcatæ; tarsi breves, articulo primo modice elongato. *Acetabula* antica postice aperta, extus vix angulata, prosterno angusto, marginato; intermedia extus clausa.

This new genus is founded on *Callidium zealandicum* (Blanch.), an insect having no near affinity to *Callidium*, but which Lacordaire was inclined to place in *Callidiopsis*, and White included in *Œmona*. It differs in essential characters from all those groups, and seems most nearly allied to the American genus *Elaphidion*.

Liogramma zealandicum.

Callidium zealandicum, Blanch. Voyage au Pôle Sud, Zool. iv. p. 272, pl. 17. f. 4.
Callidiopsis zealandicus, Lacordaire, Gen. ix. p. 357, note.

Rusty brown in colour, with paler pubescence; the smooth streaks on the thorax consist of a dorsal line and two discoidal ones on each side, the inner of which is connected with a rounded tubercle, and the outer short and sometimes obsolete; the elytra are rugose-punctate throughout.

Sent in some numbers by Mr. Wakefield, with a note attached—"Under bark, Akaroa."

Didymocantha sublineata.

Eburida sublineata, White, Voy. Ereb. & Terr. p. 19.
Didymocantha sublineata, Lacord. Gen. ix. p. 344.

Auckland and Port Nicholson.

Didymocantha picta, n. sp.

D. modice convexa, breviter erecte pubescens, castaneo-fusca; elytris nitidis, apice conjunctim rotundatis, rugoso-punctatis, utrinque

maculis quatuor fulvis; thorace spina laterali et tuberculis quinque dorsalibus, interstitiis grosse punctatis; scutello albo; antennis pedibusque castaneo-rufis. Long. 6 lin.

New Zealand. Received from Dr. Baden of Altona.

This species has some points, such as the distinctly clavate femora and tuberculate thorax, in common with the genus *Ambeodontus*; but the form of the muzzle (very short, not tapering, and with produced acute anterior angles), the antennæ, and the palpi are different and show a nearer affinity with *Didymocantha*.

The head is slightly exserted, coarsely punctured, with prominent eyes and short palpi. The antennæ are pubescent throughout, with the fourth joint distinctly shorter than the third, and much shorter than the fifth. The thorax is much narrower than the elytra, with the lateral spine placed much behind the middle, and five tubercles on the disk, three only of which are much elevated; the depressed parts are covered with round punctures. The fulvous spots on the elytra are:— one, rounded, basal; a second, elongated, behind the shoulder; a third, irregular, meeting the corresponding one on the suture in the middle; and a fourth, small, discoidal, before the apex.

Didymocantha diversicornis.

Callidium diversicornis, White, Voy. Ereb. & Terr. p. 20.

The type (a damaged specimen) in the British Museum resembles much *D. picta*, and is congeneric with it. It has, however, more numerous yellow spots on the elytra.

Œmona hirta.

Saperda hirta, Fab. Syst. Entom. p. 184.
Saperda villosa, Fab. Syst. Eleuth. ii. p. 320.
Œmona humilis, Newm. Entom. p. 8 (1840).
Isodera villosa, White, Voy. Ereb. & Terr. p. 21, t. 4. f. 1 (1846).

Auckland, apparently not uncommon.

Leptachrous, nov. gen.

Genus *Phlyctænodi* affine, a quo differt capite ante oculos magis elongato, quadrato, palpis gracilibus filiformibus etc. *Corpus* elongatum, gracile. *Caput* exsertum, antice paulo elongatum, lateribus parallelis; tubera antennifera fortiter oblique elevata. *Palpi* articulis terminalibus haud dilatatis. *Antennæ* subtiliter ciliatæ, scapo gracili, clavato, quam articulo tertio vel quarto longiore; articulus quintus precedente et sequente longior. *Thorax* antice constrictus, supra inæqualis, haud distincte tuberculatus, spina laterali validissima. *Elytra* costata, apice acute rotundata.

Pedes modice elongati; femora vix inerassata. *Prosternum* inter coxas exsertas angustum; acetabula intermedia extus aperta.

Founded on *Cerambyx strigipennis*, Westwood, which White referred with doubt to *Phlyctænodes*, but which differs in all essential points from that genus. The much shorter maxillary palpi, long square muzzle, and elongated scape are the most obvious structural peculiarities.

Leptachrous strigipennis.

Cerambyx strigipennis, Westw. Arc. Ent. ii. p. 27, pl. 56. f. 6.

Port Nicholson. Christchurch.

Amboedontus tristis.

Saperda tristis, Fab. Syst. Entom. p. 186.
Phlyctænodes trituberculatus, Redtenb. Reise Novara, Col. p. 188.

Three examples received from Mr. Fereday, of Christchurch, belong undoubtedly to the same species as the type specimen of *Saperda tristis* still preserved in the Banksian collection at the British Museum. They agree also well with Redtenbacher's description cited above.

Amboedontus retiferus, Lacord. Gen. ix. p. 374 (note).

Agapanthida pulchella, White, Voy. Ereb. & Terr. p. 22, pl. 4. f. 10.

Placed by Lacordaire near *Phlyctænodes*.

Ophryops pallidus, White, Voy. Ereb. & Terr. p. 19, pl. 4. f. 8.

Port Nicholson. I have not been able to examine the type of this and the preceding species.

ASTETHOLEA, nov. gen.

Corpus lineare, depressum, fere glabrum. *Caput* breve, rotundatum, exsertum, inter antennas latum, planum, post oculos gradatim angustatum, genis brevibus haud angulatis. *Antennæ* breviter pubescentes, scapo gradatim clavato, articulo tertio quam scapo vel articulo quarto breviore. *Oculi* magni, reniformes, grosse granulati, supra longe distantes. *Thorax* rhomboideus, planatus. *Elytra* linearia, apice obtuse rotundata. *Pedes* modice elongati; femora gradatim inerassata. *Coxæ* anticæ conicæ, contiguæ, exsertæ, prosterno ante coxas truncato; coxæ intermediæ contiguæ, mesosterno antice triangulari, inter coxas haud continuato. *Abdomen* (♀) normale.

This is another of the anomalous forms of Longicornia, of

which there are so many in Australia and New Zealand. Its nearest ally seems to be *Tricheops*; but the head is nearly plane between the antennæ, and the antenniferous tubers are almost horizontal, with a continuous impressed dorsal line.

Astetholea pauper, n. sp.

A. fulvo-testacea, glabra, pedibus pallidioribus; capite thoraceque lævibus subsericeis, hoc medio utrinque angulari haud spinoso; elytris punctulatis, utrinque bicostulatis, apud latera et apicem lævibus. Long. $3\frac{1}{4}$–4 lin. ♂ ♀.

Linear and depressed, nearly glabrous, but moderately shining. The head and thorax in their wider parts are as broad as the elytra; the latter are smooth on the sides (which are vertical) and near the apex, but punctulate and with two raised discoidal lines from the base to beyond the middle.

Auckland (*Mr. Lawson*); three examples.

Blosyropus spinosus, Redtenb. Reise Novara, Col. p. 192, t. v. f. 10.

The author does not specify the structure of the eyes, so that it remains uncertain whether this large and remarkable Longicorn belongs to this or the following division. The form of the head, according to the figure, much resembles that of *Astetholea*.

Psilomorpha tenuipes, Saunders, Trans. Ent. Soc. 2nd ser. i. p. 80, t. 4. f. 1.

Found in New Zealand, according to Redtenbacher (Col. Novara, p. 188).

Division 2. *Eyes finely faceted.*

Stenoderus suturalis, Oliv.

Recorded by Redtenbacher as taken in New Zealand.

Calliprason Sinclairi.

Calliprason Sinclairi, White, Dieffenb. New Zeal. ii. p. 277; Westw. Arc. Ent. ii. p. 27, t. 56. f. 3.

Calliprason marginatum, White, Voy. Ereb. & Terr., Ins. p. 23, t. 4. f. 6.

The exact locality of neither of these two species is recorded, and I have not yet seen examples of them.

Zorion minutum.

Callidium minutum, Fab. Syst. Ent. p. 192.
Obrium Fabricianum, Westw. Arc. Ent. ii. p. 28.

I have seen a large number of specimens from Auckland. Amongst them are several varieties, in one of which the white elytral fascia is reduced to a round spot margined with violet, and the pale bases of the femora are terminated by a dusky ring.

Zorion guttigerum, Westw. Arc. Ent. ii. p. 28, t. 56. f. 4.

Port Nicholson.

A specimen from Mr. Lawson, taken near Auckland, differs from Westwood's description by having the head and greater part of the thorax testaceous yellow, nearly as in *Z. minutum*; the tibiæ and tarsi are also violet-brown, like the clubs of the femora. It remains with New-Zealand coleopterists to decide by observation on the spot whether these diversities of coloration really indicate specific differences, and whether there are really more than one variable species in the islands.

GASTROSARUS, nov. gen.

Corpus lineare, nitidum, sparsim erecte pubescens. *Caput* exsertum, post oculos paulo angustatum sed haud elongatum; frons brevis, verticalis. *Oculi* magni, modice convexi et granulati, laterales, supra distantes. *Palpi* paulo elongati, articulis terminalibus vix dilatatis oblique truncatis. *Antennæ* basi distantes, haud ciliatæ; scapo et articulis tertio et quarto æqualibus, brevibus, quinto usque undecimum paulo longioribus. *Thorax* rhomboideus, lævis. *Elytra* linearia, utrinque postice leviter attenuata, apice acute truncata, supra fere lævia. *Prosternum* inter coxas angustum; mesosternum oblongum; metasterni episterna fere parallela, apicem versus tantum angustata; acetabula antica et intermedia extus paulo aperta. *Abdomen* (♀) lineare, elongatum; segmentis primo usque quartum normalibus, quinto ventrali late excavato et dense atque longe piloso; pygidio valde convexo et arcuato. *Pedes* robusti; femora gradatim incrassata; tarsi breves, posticorum articulo primo vix secundo tertioque conjunctim longiore.

Another anomalous genus, having no near affinity with any other known form; it seems, however, to come nearest such genera as *Callimus*, and especially the Australian *Earinis*. I know only the female, which differs from the same sex in *Earinis* in the concentration of the hairiness of the abdomen on the fifth ventral segment and on the arched borders of the pygidium. The form of the metathoracic episterna is very

similar to that of *Earinis*, as is also the thorax—oblong, with an angular dilatation in the middle of each side. The head and thorax together are small relatively to the rest of the body. The antennæ (♀) are not much more than three fourths the length of the body.

Gastrosarus nigricollis, n. sp.

G. violaceo-nigra, nitida; ore, pedibus, abdomine et elytris fulvo-testaceis, his apice violaceis. Long. 5½ lin. ♀.

The head is sparingly but strongly punctured, except the middle of the crown, which is convex and glossy. The thorax is small, very faintly punctured, and with a transverse depression near the anterior and posterior margins. Each elytron tapers gradually from base to apex, the latter being broadly and sharply truncated, and not reaching the tip of the abdomen; the surface is glossy, and bears only a few punctures, strongest near the base.

One example. Christchurch (*Mr. Fereday*).

Eburida sericea, White, Cat. Long. Col. Brit. Mus. p. 299.

Waypa River.

The type specimen of this insect in the British Museum has no resemblance whatever to *E. sublineata*, with which White associated it, and which has been found to belong to *Didymocantha*. *E. sericea* has finely faceted eyes and broadly angulated anterior acetabula, and will therefore find its proper place in the *Callidiinæ*; it will probably remain a distinct genus, but I am doubtful whether White's name can properly be applied to it.

Hylotrupes bajulus, L.

Two specimens taken by Mr. Lawson at Auckland, differing in no respect from the European insect. Evidently introduced.

Demonax spinicornis.

Clytus spinicornis, Newm. Zoologist, 1850, Suppl. p. cxix; White, Cat. Long. Col. Brit. Mus. p. 286.

New Zealand. I have not seen this species.

Coptomma variegatum.

Callidium variegatum, Fab. Syst. Ent. p. 189.
Coptomma virgatum, Newm. Ann. & Mag. Nat. Hist. v. 1840, p. 18.

Northern and Southern islands.

Navomorpha lineatum.

Callidium lineatum, Fab. Syst. Ent. i. p. 189.
Coptomma lineatum, White, Voy. Ereb. & Terr., Ins. p. 20, t. 4. f. 5.

Navomorpha sulcatum.

Callidium sulcatum, Fab. Syst. Ent. i. p. 189.
Coptomma acutipenne, White, *l. c.* t. 4. f. 2.

I have examined Fabricius's type in the Banksian collection, and fail to detect any differences between it and the *acutipenne*, White.

Auckland; Christchurch.

[To be continued.]

V.—*On the Skulls of Sea-bears and Sea-lions* (Otariadæ), *and on the Seals of the Auckland Islands.* By Dr. J. E. Gray, F.R.S. &c.

The British Museum contains a large series of the skulls of Sea-lions and Sea-bears, I believe more numerous than those of all other museums in Europe or North America put together; but the British-Museum collection, though large, does not afford a complete series of the different ages of any one species. Thus there are adult skulls of three species of Sea-lions, and also a number of skulls of the young, but not of the intermediate ages. It is the same with the different species of Sea-bears; there are skulls of adult and of very young of several species. The most interesting series is that of the Antarctic Hairy Sea-bear (*Phocarctos Hookeri*).

The examination of the Museum series leads one, I think, to the following conclusions:—

The milk-teeth, like those of the Seals, are very small, and are changed soon after birth, and are immediately followed by the permanent series, in the following order:—

The cutting-teeth are changed first, and after them the grinders, which are followed by the canines, which do not appear above the gums until after all the grinders are developed, and they continue to develop during the growth of the young animal. The crowns of the second series of teeth are, when they are first formed, of the size and form which they retain during the life of the animal, and are only altered in the adult age by the wearing away of the edge of the lobes of the crown which are developed during youth. The roots are being gradually developed during growth; they are at first